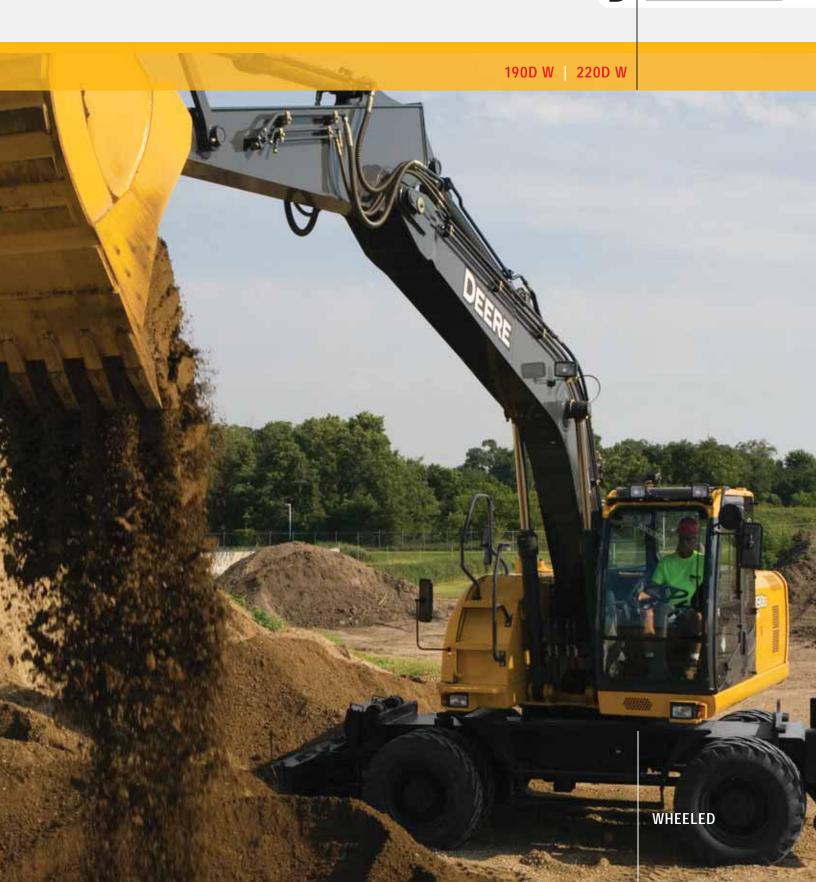
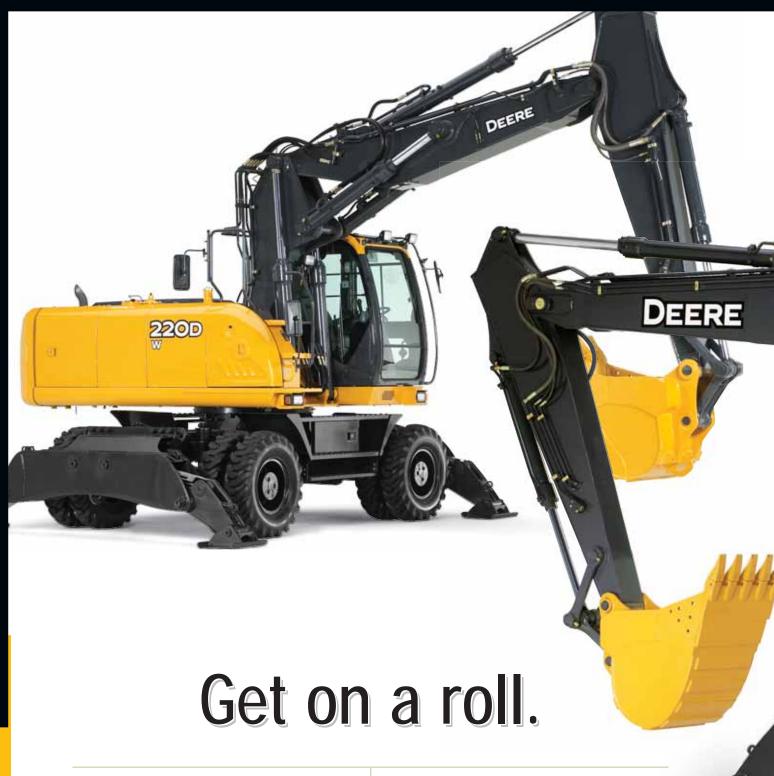


D

EXCAVATORS





If you're looking to roll in more productivity, roll up to the jobsite in a new set of wheels. The bigger, stronger 190D W and 220D W wheeled excavators travel on tires, so they're more mobile and maneuverable than truck-mounted and tracked excavators. Both feature rugged, fuel-efficient Tier-3 engines, along with a host of other productivity and uptime-boosting

enhancements. Like a highly efficient cooling system. And a best-in-class cab with more legroom, noticeably lower noise levels, and an easy-to-use multifunction monitor. Delivering the power, smoothness, ease of operation, and comfort you'd expect from Deere, these excavators have everything you need to get more done for less.



On the 220D W, wider axles and more weight provide more stability and lift capability, so you can quickly move Jersey barriers.

Faster travel speed and boom and arm movement combined with superior arm force help speed cycle times.

Noise levels — and consequently, operator fatigue — have been significantly reduced. High-efficiency cooling fan, noise-suppression muffler, and isochronous high-idle speed help keep things quiet.

Powerwise III[™] management system perfectly balances engine performance and hydraulic flow for fast, smooth, predictable operation. One work mode makes it easy to be productive in any application.

Standard deluxe lighting package provides 360-degree illumination of the work area so you can extend the workday beyond daylight hours.

If you don't need a blade, choose the four-outrigger option for maximum stability. You can activate the outriggers together or independently to quickly and easily level the machine.

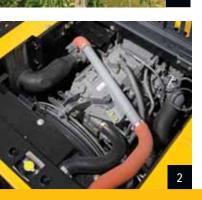
Low-flow, assist hydraulics come standard, perfect for lower pressure, lower flow applications like bucket-tilt or bucket-swinger attachments.

Need additional hydraulic capability? Dealer-installed high-pressure, high-flow auxiliary hydraulic packages are available.

Joystick controllers are pre-fitted for auxiliary controls, so it's easy and inexpensive to add auxiliary hydraulics.

Changing hydraulic flow is push button-easy using the monitor. Accommodates a variety of attachment needs, right from the seat.

- Mono boom delivers the reach and lift capacity you need for long-distance work. Or opt for a two-piece boom for added versatility.
- Cooled exhaust gas recirculation (EGR), fourvalve-per-cylinder head, and high-pressure common-rail fuel system enable the 5.2-L engines to meet Tier-3 emission standards without sacrificing power or fuel efficiency.
- Significant increases in horsepower, weight, and dig forces make these machines highly productive for a wide variety of work.
- Refined parallelogram blade better handles backfill and cleanup duties, while serving as a third stabilizer during digging.











If you want your operators to really shift into high gear, put them behind the controls of a D-Series wheeled excavator. Its spacious, well-appointed interior gives them everything they need to do their best. Ergonomic loweffort controls. Intuitive multifunction monitor. A wider expanse of tinted glass for virtually unrestricted visibility. Substantially more legroom

and ample storage space for cups, coolers, and other carryons. More peace and quiet, too, with a sound-suppressed cab that noticeably reduces fatigue-causing noise. And plenty of creature comforts including an AM/FM radio, automatic high-capacity climate-control system, and a convenient 12-volt port. For more productivity, shift after shift.



The deluxe-suspension multi-position seat slides together or independently of the control console, so it won't cramp an operator's style.

Two-speed Powershift™ transmission shifts smoothly on-the-go from low to high. Downshifting isn't a problem either, since the transmission will only shift within certain travel-speed parameters — protecting both operator and drivetrain.

Generous hydraulic flow and best-in-class metering ensure powerful digging force, precise low-effort control, and superb multifunction operation. Quick, responsive pump activation eliminates any delay in functions.

Redesigned cab isn't just roomier, it's noticeably quieter and more comfortable. Silicone-filled mounts effectively isolate operators from noise and vibration.

A wider expanse of right-hand window glass combined with narrower front cab posts and front steering console provide virtually unobstructed all-around visibility. Even the overhead tinted hatch is larger, making it easier to see obstacles overhead.

Convenient 12-volt port powers cell phones and other electronic devices.

Ergonomic short-throw pilot levers provide smooth, predictable fingertip control with less effort.

- The F-N-R directional switch is now more conveniently located on the underside of the right-hand pilot lever. Push buttons on the right lever allow fingertip control of auxiliary hydraulic flow for operating attachments.
- Automatic, high-velocity bi-level climate control system with automotive-style louvers keep the view clear and the cab comfortable.
- 3. Tilt steering wheel is infinitely adjustable for more comfortable operation. Angles up and out of the way for easy entry and exit.
- 4. No shortage of storage space in here, including a place for a lunch box, cup holders, and even a hot/cold box that keeps refreshments at just the right temperature.
- Intuitive, multi-language LCD monitor provides a wealth of information and control, including pump flow adjustment, maintenance tracking, onboard diagnostics, and service monitoring.









Heavy-duty covers on the oversize outriggers help prevent damage to the hydraulic cylinders.

Rugged, Tier-3 compliant diesels start easy, run quiet, and are easy on fuel.

Welded bulkheads within the boom resist torsional stress for long-term durability. Rigid, reinforced D-channel side frames resist impact, providing maximum cab and component protection.

Powdered metal oil-impregnated bushings enhance durability and extend grease intervals to 500 hours for the arm-and-boom joint and 100 hours for the bucket joint. Reinforced resin thrust plates increase lube intervals to 500 hours.

Larger chassis beams, swing bearings, and boom foot areas (220D W) deliver rock-solid durability.

New cooling system keeps the engine and hydraulics cool in the toughest environments.







- Wet-type disc brakes are virtually maintenance free and deliver reliable, long-term stopping power.
- Tungsten-carbide coating creates an extremely wear-resistant surface to protect the all-important bucket-to-arm joint.
- 3. Standard solid-rubber spacer between the heavy-duty dual tires keeps mud and debris out for longer tire life.
- PowerShift™ transmission has been integrated with the axle and repositioned higher above ground to better protect it from damage.







Machine Information Center (MIC) captures and stores vital machine performance and utilization data to help improve uptime, productivity, and profit. Auto-idle automatically reduces engine speed when hydraulics aren't in use. Reduces noise and preserves precious fuel.

500-hour engine and 5,000-hour hydraulic oil-service intervals enable these machines to work longer between stops for scheduled service. Lube banks, filters, and checkpoints are grouped for quick and convenient access. Centralized lube banks place difficultto-lube zerks within easy reach, for faster greasing with less mess. Nobody backs you better than the 500plus John Deere dealers throughout North America.



Get a better handle on daily operating costs.

If you're trying to hold down daily operating costs, get your hands on a John Deere excavator. Large service doors provide wide-open access to daily checkpoints. Easy-access, remote-mount oil and fuel filters can be changed without crawling under the machine or removing access panels, reducing

service time. And extended service intervals let you work longer between changes. Plus the Machine Information Center and state-of-the-art monitor with on-board diagnostics help you make timely decisions about machine upkeep — and maximize uptime, productivity, and profits.

- Ground-level fresh-air cab filter is quickly serviced from outside the cab. Where it's more likely to get done.
- Vertical spin-on engine oil filters and fuel/ water separators are conveniently grouped in the right rear compartment for easy, ground-level servicing.
- 2. Easy-to-navigate LCD color monitor provides maintenance alerts and diagnostic messages to help defeat downtime.
- Reinforced resin thrust plates, grooved bushings, and thermal-coated bucket joints increase arm, boom, and bucket lube intervals to 500 hours.
- **3.** Large, wide-open service doors provide quick and easy access to daily service items.
- Fuel coolers and A/C condensers swing out, simplifying clean out. Side-by-side coolers are easier to clean.













Specifications



Engine 190D W

Manufacturer and Model Isuzu 4HK1X

Non-Road Emission Standards certified to EPA Tier 3 emissions

 Displacement
 317 cu. in. (5.2 L)

 SAE Net Rated Power @ 2,000 rpm
 159 hp (119 kW)

Off-Level Capacity 67%

Aspiration turbocharged and intercooled

Cooling

Direct-drive, suction-type fan

Powertrain

Two-speed propel with creeper mode and automatic shift

Travel Speed (maximum)

 Creeper
 1.6 mph (2.6 km/h)

 Low
 5.3 mph (8.5 km/h)

 High
 21.7 mph (35.0 km/h)

Front Axle all-wheel drive; can be locked hydraulically in any position

Oscillation ±7 deg.

Brakes..... maintenance-free wet-disc brakes on front and rear axles; fully hydraulic service brakes

Hydraulics

Auxiliary hydraulic flow adjustable through monitor

Main Pumps 2 variable-displacement axial-piston pumps

 Pump Flow (maximum x 2).
 49.9 gpm (189 L/m)

 Pilot Pump
 one gear

 Maximum Rated Flow.
 7.3 gpm (27.7 L/m)

 System Relief Pressure
 566 psi (3900 kPa)

System Operating Pressure

 Implement Circuits
 4,975 psi (34 300 kPa)

 Travel Circuits
 4,975 psi (34 300 kPa)

 Swing Circuits
 4,699 psi (32 400 kPa)

Controls...... pilot levers, short stroke, low effort; hydraulic pilot controls with shutoff lever

Cylinders

Heat-treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins

Rod Diameter Stroke **Monoblock Boom (2)** 4.7 in. (120 mm) 3.3 in. (85 mm) 41.3 in. (1050 mm) **2-Piece Boom (2)** 4.7 in. (120 mm) 3.3 in. (85 mm) 38.6 in. (980 mm) **Positioning (2), 2-Piece Boom**.............................. 6.7 in. (170 mm) 4.3 in. (110 mm) 26.4 in. (670 mm) **Arm (1)** 4.9 in. (125 mm) 3.5 in. (90 mm) 54.0 in. (1371 mm) **Bucket (1)** 4.1 in. (105 mm) 3.0 in. (75 mm) 41.7 in. (1060 mm)

Electrical

Voltage24 voltNumber of Batteries (12 volt)2Alternator Rating50 amp

Lights (6). headlights (2), top of cab (2), rear of cab (1), and boom (1)

Driving Lights headlights (2), turn signals and hazard lights, brake lights, and side-marker lights

Upperstructure/Swing Mechanism

Sight	Gauges
Refill	Canacitie

,	iii Gapacitics	
	Fuel Tank	77 gal. (290 L)
	Cooling System	6 gal. (22 L)
	Engine Oil with Filter	6 gal. (23 L)
	Hydraulic Tank	45 gal. (170 L)
	Hydraulic System	63 gal. (240 L)
	Swing Drive	7.3 qt. (6.9 L)
	Transmission Pump	1 qt. (0.95 L)
	Transmission	3 qt. (2.8 L)
	Axle	
	Front	2.5 gal. (9.5 L)
	Rear	3.7 gal. (14 L)
	Front and Rear Hubs	2 x 2.6 qt. (2 x 2.5 L)

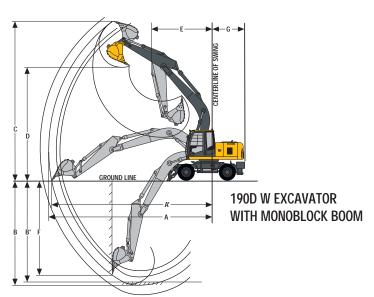
Operating Weights

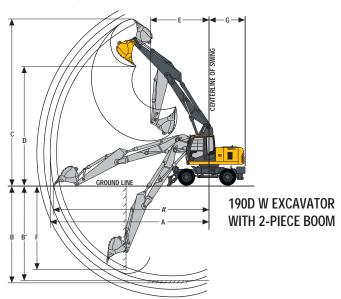
With Full Fuel Tank; 175-lb. (79 kg) Operator; 0.92-cu.-yd. (0.7 m³), 35-in. (900 mm), 1,345-lb. (610 kg) General-Purpose Bucket; 8-ft. 11-in. (2.71 m) Arm; Standard Gauge; and 8,929-lb. (4200 kg) Counterweight

 2-Piece Boom 45,636 lb. (20 700 kg) 44,974 lb. (20 400 kg)

Operating Dimensions

		Monoblock Boom	2-Piece Boom
Arm	Force	18,465 lb. (82.1 kN)	18,509 lb. (82.3 kN)
Buck	tet Digging Force	22,916 lb. (101.9 kN)	22,916 lb. (101.9 kN)
Liftin	g Capacity Over Front at Ground Level		
2	20-ft. (6.1 m) Reach	13,563 lb. (6152 kg)	12,699 lb. (5760 kg)
Α	Maximum Reach	31 ft. 5 in. (9.58 m)	31 ft. 1 in. (9.48 m)
A'	Maximum Reach at Ground Level	30 ft. 10 in. (9.40 m)	30 ft. 6 in. (9.30 m)
В	Maximum Digging Depth	19 ft. 2 in. (5.83 m)	19 ft. 5 in. (5.93 m)
B'	Maximum Digging Depth at 8-ft. (2.44 m)		
	Flat Bottom	18 ft. 6 in. (5.64 m)	18 ft. 10 in. (5.74 m)
C	Maximum Cutting Height	30 ft. 4 in. (9.25 m)	32 ft. 4 in. (9.85 m)
D	Maximum Dumping Height	21 ft. 2 in. (6.45 m)	22 ft. 10 in. (6.95 m)
Ε	Minimum Swing Radius	11 ft. 5 in. (3.48 m)	9 ft. 10 in. (3.00 m)
F	Maximum Vertical Wall	17 ft. 3 in. (5.26 m)	17 ft. 3 in. (5.26 m)
G	Tail Swing Radius	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)





With standard gauge. Dimensions are provided for both the front and rear outrigger configuration, and for the front blade and rear outrigger configuration. Monoblock Boom 2-Piece Boom

		WOTODIOCK DOOTT	Z-1 1000 D00111
Α	Overall Length (with 8-ft. 11-in.		
	[2.71 m] arm)	29 ft. 6 in. (8.98 m)	
Α'	Overall Length (with 8-ft. 11-in.		
	[2.71 m] arm)		. 28 ft. 10 in. (8.80 m)
В	Overall Height of Boom (with 8-ft. 11-in.		
	[2.71 m] arm)	10 ft. 3 in. (3.13 m)	
B'	Overall Height of Boom (with 8-ft. 11-in.		
	[2.71 m] arm)		. 10 ft. 6 in. (3.21 m)
C	Rear-End Swing Radius	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)
n	Engine Cover Height	7 ft 0 in (0.05 m)	7 ft 0 in (0.25 m)

	[2.71 m] arm)	. 10 ft. 6 in. (3.21 m)
C	Rear-End Swing Radius 7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)
D	Engine Cover Height 7 ft. 8 in. (2.35 m)	7 ft. 8 in. (2.35 m)
Ε	Counterweight Clearance 4 ft. 1 in. (1.24 m)	4 ft. 1 in. (1.24 m)
F	Overall Width of Upperstructure 8 ft. 0 in. (2.45 m)	8 ft. 0 in. (2.45 m)
G	Overall Height of Cab	10 ft. 3 in. (3.13 m)
Н	Overall Width of Tires 8 ft. 4 in. (2.54 m)	8 ft. 4 in. (2.54 m) ı)
J	Minimum Ground Clearance 14 in. (0.35 m)	14 in. (0.35 m)
K	Wheelbase 8 ft. 8 in. (2.65 m)	8 ft. 8 in. (2.65 m)
L	Swing Center to Rear Axle 3 ft. 9 in. (1.15 m)	3 ft. 9 in. (1.15 m)
B/I	Front Overhand	

M	Front Overhang	
	Front and Rear Outrigger	4 ft. 6 in. (1.38 m)
	Front Blade and Rear Outrigger	4 ft. 4 in. (1.32 m)
N	Rear Overhang	3 ft 7 in (1 09 m)

	9	(
0	Maximum Blade Lower	9 in. (0.22 m)
P	Overall Height of Blade	23 in. (0.59 m)
Q	Maximum Blade Raise	15 in. (0.37 m)
R	Overall Width of Blade	8 ft. 4 in. (2.53 m)
C	Overall Width with Outringer Detrooted	0 ft 1 in (0 47 m)

			,		
S	Overall Width with Outrigger Retracted 8	8 ft. 1	in. (2	2.47	m)
T	Overall Width with Outrigger Extended	11 ft.	3 in.	(3.44	- m)
V	Overall Height of Boom (traveling, with				

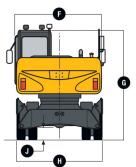
	8-ft. 11-in. [2.71 m] arm)	13 ft. 0 in. (3.97 m)
W	Front Overhang (traveling, with 8-ft. 11-in.	
	[2.71 m] arm)	17 ft. 3 in. (5.26 m)

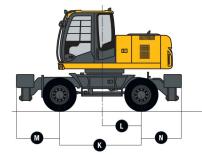


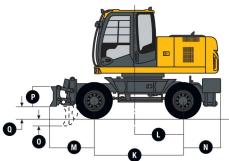
9 in. (0.22 m) 23 in. (0.59 m) 15 in. (0.37 m) 8 ft. 4 in. (2.53 m) 8 ft. 1 in. (2.47 m) 11 ft. 3 in. (3.44 m)

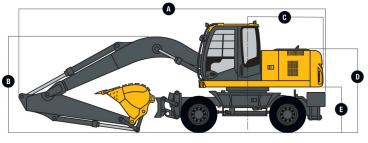
13 ft. 0 in. (3.97 m)

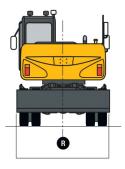




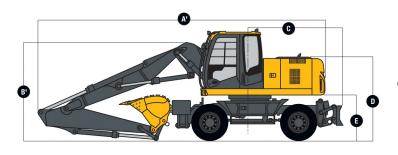


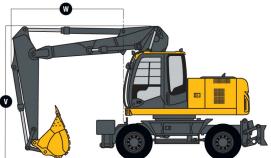












Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 0.92-cu.-yd. (0.7 m³), 35-in. (900 mm) wide, 1,345-lb. (610 kg) bucket; 8-ft. 11-in. (2.71 m) arm; and standard gauge; and situated on firm, uniform surface. Total load includes weight of cables, hook. Etc. Figures do not exceed 87% of hydraulic capacities or 75% of weight needed to tip machine. All capacities are based on SAE J1097.

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	0)			
10 ft /2 0E m) 14 02E //374) 14 02E //374) 44 237 /E4/4) 44 237 /E4/	6) 7,018 (3183)	7,018 (3183)		
10 ft. (3.05 m) 14,935 (6774) 14,935 (6774) 11,377 (5161) 11,377 (516	1) 9,563 (4338)	8,182 (3711)		
5 ft. (1.52 m) 18,141 (8229) 18,032 (8179) 12,813 (5812) 11,365 (515	5) 10,152 (4605)	7,926 (3595)		
Ground Line 19,027 (8631) 17,337 (7864) 13,563 (6152) 10,947 (496	5) 10,403 (4719)	7,710 (3497)		
-5 ft. (-1.52 m) 13,594 (6166) 13,594 (6166) 17,860 (8101) 17,162 (7785) 13,189 (5982) 10,751 (487	7) 9,868 (4476)	7,606 (3450)		
-10 ft. (-3.05 m) 18,739 (8500) 18,739 (8500) 15,119 (6858) 15,119 (6858) 11,373 (5159) 10,775 (488	7)			
-15 ft. (-4.57 m) 10,159 (4608) 10,159 (4608)				
With 2-piece boom and rear outriggers and front blade down				
20 ft. (6.10 m) 7,303 (3313) 7,303 (3313)	3)			
15 ft. (4.57 m) 7,841 (3557) 7,841 (3557)	7) 6,472 (2936)	6,472 (2936)		
10 ft. (3.05 m) 11,722 (5317) 9,352 (4242) 9,352 (4242)	2) 8,353 (3789)	7,288 (3306)		
5 ft. (1.52 m) 18,202 (8256) 18,202 (8256) 15,785 (7160) 15,608 (7080) 11,210 (5085) 10,138 (459		7,165 (3250)		
Ground Line 24,017 (10 894) 24,017 (10 894) 18,200 (8255) 15,606 (7079) 12,699 (5760) 10,163 (461	0) 9,967 (4521)	6,936 (3146)		
-5 ft. (-1.52 m) 26,247 (11 905) 26,247 (11 905) 18,771 (8514) 15,950 (7235) 13,335 (6049) 10,175 (461)	, , ,	6,656 (3019)		
-10 ft. (-3.05 m) 27,351 (12 406) 27,351 (12 406) 19,256 (8734) 16,144 (7323) 13,699 (6214) 9,650 (4377)	7)			
-15 ft. (-4.57 m) 27,351 (12 406) 27,351 (12 406) 17,375 (7881) 15,448 (7007)				
With 2-piece boom and 4 outriggers down				
20 ft. (6.10 m) 7,303 (3313) 7,303 (3313)	3)			
15 ft. (4.57 m) 7,841 (3557) 7,841 (3557)				
10 ft. (3.05 m) 11,722 (5317) 11,722 (5317) 9,352 (4242) 9,352 (4242)				
5 ft. (1.52 m) 18,202 (8256) 18,202 (8256) 15,785 (7160) 15,785 (7160) 11,210 (5085) 11,210 (508	, , ,			
Ground Line 24,017 (10 894) 24,017 (10 894) 18,200 (8255) 17,815 (8081) 12,699 (5760) 11,538 (523				
-5 ft. (-1.52 m) 26,247 (11 905) 26,247 (11 905) 18,771 (8514) 18,104 (8212) 13,335 (6049) 11,855 (537		7,847 (3559)		
-10 ft. (-3.05 m) 27,351 (12 406) 27,351 (12 406) 19,256 (8734) 18,926 (8585) 13,699 (6214) 11,374 (515)	9)			
-15 ft. (-4.57 m) 27,351 (12 406) 27,351 (12 406) 17,375 (7881) 17,375 (7881)				

Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 6 inches (150 mm) to bucket widths.

	Bu	cket	Buc	ket			Buck	cet	Arm Dig	g Force	Buo	cket	
Type Bucket	Width		Capacity		Weight		Dig Force		8 ft. 11 in. (2.71 m)		Tip Radius		No. Teeth
	in.	mm	cu. yd.	m³	lb.	kg	lb.	kN	lb.	kN	in.	mm	
General-Purpose	30	762	0.79	0.60	1,432	650	22,762	101.3	18,465	82.1	58.0	1473	4
High Capacity	36	914	1.00	0.76	1,621	735	22,762	101.3	18,465	82.1	58.0	1473	5
	42	1067	1.22	0.93	1,790	812	22,762	101.3	18,465	82.1	58.0	1473	5
	48	1219	1.43	1.09	1,976	896	22,762	101.3	18,465	82.1	58.0	1473	6
Heavy-Duty	24	610	0.52	0.40	1,197	543	22,916	101.9	18,509	82.3	57.61	1463	4
Plate Lip	30	762	0.71	0.54	1,369	621	22,916	101.9	18,509	82.3	57.61	1463	4
·	36	914	0.90	0.69	1,559	707	22,916	101.9	18,509	82.3	57.61	1463	5
	42	1067	1.09	0.83	1,731	785	22,916	101.9	18,509	82.3	57.61	1463	5
	48	1219	1.29	0.99	1,921	871	22,916	101.9	18,509	82.3	57.61	1463	6
Heavy-Duty	24	610	0.56	0.43	1,424	646	22,762	101.3	18,465	82.1	58.0	1473	4
High Capacity	30	762	0.76	0.58	1,593	723	22,762	101.3	18,465	82.1	58.0	1473	4
0 , ,	36	914	0.97	0.74	1,782	808	22,762	101.3	18,465	82.1	58.0	1473	5
	42	1067	1.19	0.91	1,951	885	22,762	101.3	18,465	82.1	58.0	1473	5
Ditching	60	1524	1.14	0.87	1,271	577	31,720	141.1	20,505	91.2	41.62	1057	0

Engine 220D W

Manufacturer and Model Isuzu 4HK1X

Non-Road Emission Standards certified to EPA Tier 3 emissions

Aspiration turbocharged and intercooled

Cooling

Direct-drive, suction-type fan

Powertrain

Two-speed propel with creeper mode and automatic shift

Travel Speed (maximum)

 Creeper
 1.8 mph (2.9 km/h)

 Low
 4.6 mph (7.4 km/h)

 High
 23.3 mph (37.5 km/h)

Front Axle all-wheel drive; can be locked hydraulically in any position

Oscillation ±7 deg.

Brakes..... maintenance-free wet-disc brakes on front and rear axles; fully hydraulic service brakes

Hydraulics

Auxiliary hydraulic flow adjustable through monitor

Main Pumps 2 variable-displacement axial-piston pumps

 Pump Flow (maximum x 2)
 49.9 gpm (189 L/m)

 Pilot Pump
 one gear

 Maximum Rated Flow
 7.3 gpm (27.7 L/m)

 Control Policies
 5/(4001 Policies)

System Operating Pressure

 Implement Circuits
 4,975 psi (34 300 kPa)

 Travel Circuits
 4,975 psi (34 300 kPa)

 Swing Circuits
 4,192 psi (28 900 kPa)

Controls..... pilot levers, short stroke, low effort; hydraulic pilot controls with shutoff lever

Cylinders

Heat-treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins

	Bore	Rod Diameter	Stroke
Monoblock Boom (2)	4.7 in. (120 mm)	3.3 in. (85 mm)	48.6 in. (1235 mm)
2-Piece Boom (2)	4.9 in. (125 mm)	3.3 in. (85 mm)	40.3 in. (1024 mm)
Positioning (2), 2-Piece Boom	5.3 in. (135 mm)	3.7 in. (95 mm)	34.4 in. (875 mm)
Arm (1)	5.3 in. (135 mm)	3.7 in. (95 mm)	58.1 in. (1475 mm)
Bucket (1)	4.5 in. (115 mm)	3.1 in. (80 mm)	41.7 in. (1060 mm)

Electrical

Voltage24 voltNumber of Batteries (12 volt)2Alternator Rating50 amp

Lights (6). headlights (2), top of cab (2), rear of cab (1), and boom (1)

Driving Lights headlights (2), turn signals and hazard lights, brake lights, and side-marker lights

Upperstructure/Swing Mechanism

Swing Speed 12.2 rpm

Sight	Gauges
Refill	Capacitie

, 1	iii Gapacitics	
	Fuel Tank	94 gal. (355 L)
	Cooling System	7 gal. (26 L)
	Engine Oil with Filter	6 gal. (23 L)
	Hydraulic Tank	53 gal. (200 L)
	Hydraulic System	90 gal. (340 L)
	Swing Drive	7.3 qt. (6.9 L)
	Transmission Pump	1 qt. (0.95 L)
	Transmission	3 qt. (2.5 L)
	Axle	•
	Front	2.5 gal. (9.6 L)
	Rear	3.7 gal. (13.1 L)
	Front and Rear Hubs	
		• •

Operating Weights

With Full Fuel Tank; 175-lb. (79 kg) Operator; 0.92-cu.-yd. (0.7 m³), 35-in. (900 mm), 1,345-lb. (610 kg) General-Purpose Bucket; 9-ft. 7-in. (2.91 m) Arm; Standard Gauge, and 0.020 lb. (4200 kg) Counterwinth

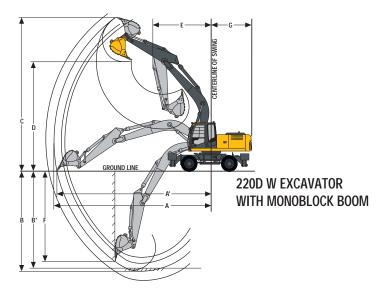
 and 8,929-lb. (4200 kg) Counterweight
 Monoblock Boom
 2-Piece Boom

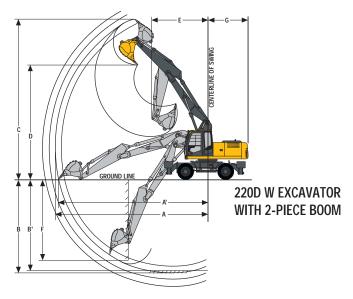
 Front and Rear Outrigger
 49,888 lb. (22 629 kg)
 52,003 lb. (23 588 kg)

 Front Blade and Rear Outrigger
 49,207 lb. (22 320 kg)
 51,368 lb. (23 300 kg)

Operating Dimensions

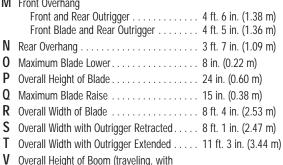
	Monoblock Boom	2-Piece Boom
Arm Force	22,873 lb. (101.7 kN)	22,873 lb. (101.7 kN)
Bucket Digging Force	28,904 lb. (128.6 kN)	28,904 lb. (128.6 kN)
Lifting Capacity Over Front at Ground Level		
20-ft. (6.1 m) Reach*	16,190 lb. (7344 kg)	15,669 lb. (7107 kg)
A Maximum Reach	33 ft. 4 in. (10.17 m)	32 ft. 8 in. (9.96 m)
A' Maximum Reach at Ground Level	32 ft. 8 in. (9.96 m)	32 ft. 0 in. (9.75 m)
B Maximum Digging Depth	20 ft. 8 in. (6.29 m)	19 ft. 11 in. (6.08 m)
B' Maximum Digging Depth at 8-ft. (2.44 m)		
Flat Bottom	20 ft. 1 in. (6.11 m)	19 ft. 8 in. (5.99 m)
C Maximum Cutting Height	33 ft. 5 in. (10.19 m)	34 ft. 8 in. (10.56 m)
D Maximum Dumping Height	24 ft. 1 in. (7.35 m)	25 ft. 0 in. (7.63 m)
E Minimum Swing Radius	11 ft. 3 in. (3.43 m)	11 ft. 10 in. (3.60 m)
F Maximum Vertical Wall	18 ft. 4 in. (5.60 m)	17 ft. 3 in. (5.25 m)
G Tail Swing Radius	9 ft. 0 in. (2.75 m)	9 ft. 0 in. (2.75 m)
*With power boost.		





With standard gauge. Dimensions are provided for both the front and rear outrigger configuration, and for the front blade and rear outrigger configuration.

VVILI	i standard gadge. Dimensions are provided for	Monoblock Boom	2-Piece Boom
Α	Overall Length (with 9-ft. 7-in. [2.91 m] arm)		
A'	Overall Length (with 9-ft. 7-in. [2.91 m] arm)		. 30 ft. 7 in. (9.32 m)
В	Overall Height of Boom (with 9-ft. 7-in. [2.91 m] arm)		, ,
В'	Overall Height of Boom (with 9-ft. 7-in. [2.91 m] arm)		. 11 ft. 1 in. (3.39 m)
C	Rear-End Swing Radius	9 ft. 0 in. (2.75 m)	9 ft. 0 in. (2.75 m)
D	Engine Cover Height	8 ft. 3 in. (2.52 m)	8 ft. 3 in. (2.52 m)
Ε	Counterweight Clearance		4 ft. 0 in. (1.23 m)
F	Overall Width of Upperstructure	8 ft. 1 in. (2.47 m)	8 ft. 1 in. (2.47 m)
G	Overall Height of Cab	10 ft. 5 in. (3.17 m)	10 ft. 5 in. (3.17 m)
Н	Overall Width of Tires	8 ft. 11 in. (2.73 m)	8 ft. 11 in. (2.73 m)
J	Minimum Ground Clearance	13 in. (0.33 m)	13 in. (0.33 m)
K	Wheelbase	9 ft. 0 in. (2.75 m)	9 ft. 0 in. (2.75 m)
L	Swing Center to Rear Axle	4 ft. 3 in. (1.30 m)	4 ft. 3 in. (1.30 m)
M	Front Overhang		
	Front and Door Outrigger	1 ft / in /1 20 m)	1 ft (in (1 20 m)

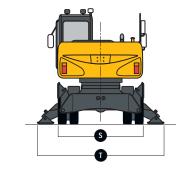


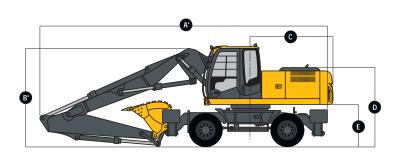
Overall Height of Boom (traveling, with **W** Front Overhang (traveling, with 9-ft. 7-in.

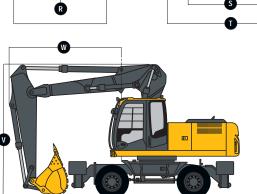


8 ft. 4 in. (2.53 m) 8 ft. 1 in. (2.47 m) 11 ft. 3 in. (3.44 m) 13 ft. 1 in. (4.00 m) 11 ft. 6 in. (3.50 m)









Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 0.92-cu.-yd. (0.7 m³), 35-in. (900 mm) wide, 1,345-lb. (610 kg) bucket; 9-ft. 7-in. (2.91 m) arm; and standard gauge; and situated on firm, uniform surface. Total load includes weight of cables, hook. Etc. Figures do not exceed 87% of hydraulic capacities or 75% of weight needed to tip machine. All capacities are based on SAE J1097.

Load Point			•			5.10 m) 25 ft. (30 ft. (9	,
Height	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With monoblock	boom and rear o	outriggers and fro	nt blade down							
25 ft. (7.62 m)					6,811 (3089)	6,811 (3089)				
20 ft. (6.10 m)					8,666 (3931)	8,666 (3931)	8,119 (3683)	8,119 (3683)		
15 ft. (4.57 m)					9,977 (4525)	9,977 (4525)	9,355 (4243)	9,355 (4243)		
10 ft. (3.05 m)			16,422 (7449)	16,422 (7449)	12,223 (5544)	12,223 (5544)	10,365 (4701)		7 040 (0550)	(774 (0074)
5 ft. (1.52 m)			21,418 (9715)	20,122 (9127)	14,594 (6620)	12,917 (5859)			7,843 (3558)	6,771 (3071)
Ground Line	12 024 ((270)	12 024 ((270)	23,383 (10 606)	19,465 (8829)	16,190 (7344)	12,452 (5648)	12,442 (5644)			
-5 ft. (-1.52 m)	13,824 (6270)	13,824 (6270) 22,679 (10 287)	23,032 (10 447) 21,063 (9554)	19,348 (8776) 19,509 (8849)	16,584 (7522) 15,576 (7065)	12,254 (5558) 12,293 (5576)	12,636 (5732) 11,494 (5214)			
-15 ft. (-4.57 m)	22,017 (10 201)	22,017 (10 201)	16,922 (7676)	16,922 (7676)	12,226 (5546)	12,293 (5576) 12,226 (5546)	11,474 (3214)	0,000 (3773)		
	boom and 4 out	rianers down	10,722 (7070)	10,722 (7070)	12,220 (0040)	12,220 (5540)				
25 ft. (7.62 m)	. Doorn and 4 out	nggors down			6,811 (3089)	6,811 (3089)				
20 ft. (6.10 m)					8,666 (3931)	8,666 (3931)	8,119 (3683)	8,119 (3683)		
15 ft. (4.57 m)					9,977 (4525)	9,977 (4525)	9,355 (4243)	9,355 (4243)		
10 ft. (3.05 m)			16,422 (7449)	16,422 (7449)	12,223 (5544)	12,223 (5544)	10,365 (4701)			
5 ft. (1.52 m)			21,418 (9715)	21,418 (9715)	14,594 (6620)	13,701 (6215)	11,549 (5239)		7,843 (3558)	7,194 (3263)
Ground Line			23,383 (10 606)	20,775 (9423)	16,190 (7344)	13,232 (6002)	12,442 (5644)	9,413 (4270)		
–5 ft. (–1.52 m)	13,824 (6270)	13,824 (6270)	23,032 (10 447)	20,656 (9369)	16,584 (7522)	13,030 (5910)	12,636 (5732)			
	22,679 (10 287)	22,679 (10 287)		20,820 (9444)	15,576 (7065)	13,070 (5928)	11,494 (5214)	9,357 (4244)		
-15 ft. (-4.57 m)	 		16,922 (7676)	16,922 (7676)	12,226 (5546)	12,226 (5546)				
	om and rear outr	iggers and front b	blade down							
25 ft. (7.62 m)					5,924 (2687)	5,924 (2687)				
20 ft. (6.10 m)					6,726 (3051)	6,726 (3051)	6,385 (2896)	6,385 (2896)		
15 ft. (4.57 m)			40 500 (5 (00)	40 500 (5(00)	7,793 (3535)	7,793 (3535)	8,289 (3760)	8,289 (3760)		
10 ft. (3.05 m)			12,523 (5680)	12,523 (5680)	10,127 (4594)	10,127 (4594)	9,323 (4229)	9,323 (4229)		
5 ft. (1.52 m) Ground Line	27 552 (12 407)	27,552 (12 497)	18,714 (8489)	18,714 (8489) 20,086 (9111)	13,042 (5916) 15,669 (7107)	13,030 (5910) 12,968 (5882)	10,848 (4921) 12,395 (5622)	9,356 (4244)		
–5 ft. (–1.52 m)		32,465 (14 726)		20,459 (9280)	17,429 (7906)	13,309 (6037)	13,538 (6141)			
		34,618 (15 702)		21,411 (9712)	18,140 (8228)	13,007 (5900)	13,330 (0141)	7,032 (4077)		
, ,	, , ,	34,624 (15 705)	, ,	20,878 (9470)	10,110 (0220)	10,007 (0700)				
	om and 4 outrigg			, , ,						
25 ft. (7.62 m)	33	·			5,924 (2687)	5,924 (2687)				
20 ft. (6.10 m)					6,726 (3051)	6,726 (3051)	6,385 (2896)	6,385 (2896)		
15 ft. (4.57 m)					7,793 (3535)	7,793 (3535)	8,289 (3760)	8,289 (3760)		
10 ft. (3.05 m)			12,523 (5680)	12,523 (5680)	10,127 (4594)	10,127 (4594)	9,323 (4229)	9,323 (4229)		
5 ft. (1.52 m)			18,714 (8489)	18,714 (8489)	13,042 (5916)	13,042 (5916)	10,848 (4921)			
Ground Line	, , ,	, , ,	23,032 (10 447)	21,208 (9620)	15,669 (7107)	13,637 (6186)	12,395 (5622)			
–5 ft. (–1.52 m)			25,013 (11 346)	21,562 (9780)	17,429 (7906)	13,939 (6323)	13,538 (6141)	9,576 (4344)		
			25,610 (11 617)		18,140 (8228)	13,794 (6257)				
, ,	34,624 (15 705)	34,624 (15 705)	26,284 (11 922)	22,215 (10 077)						
uakata										

Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 6 inches (150 mm) to bucket widths.

	Bucket Width		Bucket Capacity				Bucket		Arm Dig Force		Bucket		
Type Bucket					Weight		Dig Force		9 ft. 7 in. (2.91 m)		Tip Radius		No. Teeth
	in.	mm	cu. yd.	\mathbf{m}^3	lb.	kg	lb.	kN	lb.	kN	in.	mm	
General-Purpose	30	762	0.79	0.60	1,432	650	28,904	128.6	22,873	101.7	58.0	1473	4
High Capacity	36	914	1.00	0.76	1,621	735	28,904	128.6	22,873	101.7	58.0	1473	5
	42	1067	1.22	0.93	1,790	812	28,904	128.6	22,873	101.7	58.0	1473	5
	48	1219	1.43	1.09	1,976	896	28,904	128.6	22,873	101.7	58.0	1473	6
Heavy-Duty	24	610	0.52	0.40	1,197	543	29,099	129.4	22,924	102.0	57.61	1463	4
Plate Lip	30	762	0.71	0.54	1,369	621	29,099	129.4	22,924	102.0	57.61	1463	4
•	36	914	0.90	0.69	1,559	707	29,099	129.4	22,924	102.0	57.61	1463	5
	42	1067	1.09	0.83	1,731	785	29,099	129.4	22,924	102.0	57.61	1463	5
	48	1219	1.29	0.99	1,921	871	29,099	129.4	22,924	102.0	57.61	1463	6
Heavy-Duty	24	610	0.56	0.43	1,424	646	28,904	128.6	22,873	101.7	58.0	1473	4
High Capacity	30	762	0.76	0.58	1,593	723	28,904	128.6	22,873	101.7	58.0	1473	4
	36	914	0.97	0.74	1,782	808	28,904	128.6	22,873	101.7	58.0	1473	5
	42	1067	1.19	0.91	1,951	885	28,904	128.6	22,873	101.7	58.0	1473	5
	48	1219	1.39	1.06	2,139	970	28,904	128.6	22,873	101.7	58.0	1473	6
Ditchina	60	1524	1.14	0.87	1,271	577	40.279	179.2	25.271	112.4	41.62	1057	0

190D W / 220D W WHEELED EXCAVATORS

Key: ■ Standard equipment ▲ Optional or special equipment

*See your John Deere dealer for further information.

190 220 **Engin**e

- Certified to EPA Tier 3 emissions
- Auto-idle system
- Coolant recovery tank
- Dual element dry-type air filter
- Enclosed fan guard (conforms to SAE J1308)
- Engine coolant to -34°F (-37°C)
- Fuel filter with water separator
- Full-flow oil filter
- Radiator trash screen
- Turbocharger with charge air cooler
- Underhood muffler with vertical curved end exhaust stack

Hydraulic System

- Reduced-drift valve for boom down, arm in
- Auxiliary hydraulic valve section
- Spring-applied, hydraulically released automatic swing brake
- Brake valves for travel circuits
- Individual control of outriggers
- Auxiliary hydraulic lines
- Auxiliary pilot and electric controls
- Hydraulic filter restriction indicator kit
- Low-flow/medium-pressure-assist hydraulics

Undercarriage

- Brakes, four wheel, maintenance free, wet disc
- Creeper speed range
- Front axle, oscillating, lockable
- Front blade and rear outriggers (2)
- Outriggers (4)
- Parking brake
- Dual traction-type tires, 10.00-20, 16 PR with spacer
- Toolbox on left chassis

Upperstructure

- Right- and left-hand mirrors
- Vandal locks with ignition key: Cab door / Fuel cap / Service doors

190 220 Front Attachments

- 18-ft. 0-in. (5.5 m) monoblock boom with 8-ft. 11-in. (2.71 m) arm
 - 18-ft. 8-in. (5.68 m) monoblock boom with 9-ft. 7-in. (2.91 m) arm
- Variable-geometry, two-piece boom with 8-ft. 11-in. (2.71 m) arm
 - Variable-geometry, two-piece boom with 9-ft. 7-in. (2.91 m) arm
- Centralized lubrication system
- Dirt seals on all bucket pins
- Buckets: Ditching / General purpose / General-purpose high capacity / Heavy duty / Heavy-duty high capacity / Side cutters and teeth

Operator's Station

- Adjustable independent control positions (levers-to-seat, seat-to-pedals)
- AM/FM radio
- Auto climate control/air conditioner, 20,000 Btu/hr. (5.9 kW) with heater and pressurizer
- Built-in Operator's Manual storage compartment and manual
- Cell-phone power outlet, 12 volt, 60 watt, 5 amp
- Coat hook
- Deluxe suspension cloth seat with 4-in.
- (100 mm) adjustable armrests
- Floor mat
- Front windshield wiper with intermittent
- Gauges (illuminated): Engine coolant / Fuel / Brake pressure
- Horn, electric
- Hourmeter, electric
- Hydraulic shutoff lever, all controls
- Hydraulic warm-up control
- Interior light
- Large cup holder
- Machine Information Center (MIC)
- Mode selectors (illuminated): Power modes three / Work mode - one

190 220 Operator's Station (continued)

- High/low travel mode with creeper range Monitor system with alarm features: Autoidle light / Brake pressure audible alarm / Engine air cleaner restriction indicator light / Engine coolant temperature indicator light with audible alarm / Engine oil pressure
 - indicator light with audible alarm / Low alternator charge indicator light / Low fuel indicator light / Speedometer / Trip meter / Wiper mode indicator / Work lights on indicator / Work mode indicator
 - Monitor system with alarm features: Hydraulic oil filter restriction indicator light
 - Motion alarm with cancel switch (conforms to SAE J994)
 - Power-boost switch on right control lever
 - SAE two-lever control pattern
 - Seat belt, 2 in. (51 mm), retractable
 - Seat belt, 3 in. (76 mm), non-retractable
 - Tinted glass
 - Transparent tinted overhead hatch
 - Tilting steering column
 - Sun visor
 - Windshield washer/wiper with constant and intermittent speeds
- 24- to 12-volt D.C. radio convertors, 10 amp
- Window vandal protection covers

Electrical

- 50-amp alternator
- Blade-type multi-fused circuits
- Positive terminal battery covers
- JDLink™ wireless communication system

Lights

- Headlights (2)
- Work lights, top of cab (2), rear of cab (1), and boom (1)
- Turn signals / Hazard lights
- Brake lights
- Side marker lights

CONTROL OWNING AND OPERATING COSTS

Customer Personal Service (CPS) is part of John Deere's proactive, fix-before-fail strategy on machine maintenance that will help control costs, increase profits, and reduce stress. Included in this comprehensive lineup of ongoing programs and services are:

Fluid analysis program – tells you what's going on inside all of your machine's major components so you'll know if there's a problem before you see a decline in performance. Fluid analysis is included in most extended coverage and preventivemaintenance agreements.

Component life-cycle data – gives you vital information on the projected life span of components and lets you make informed decisions on machine maintenance by telling you approximately how many hours of use you can expect from an engine, transmission, or hydraulic pump. This information can be used to preempt catastrophic downtime by servicing major components at about 80 percent of their life cycle.

Preventive Maintenance (PM) agreements - give you a fixed cost for maintaining a machine for a given period of time. They also help you avoid downtime

Net engine power is with standard equipment including air cleaner

exhaust system, alternator, and cooling fan at test conditions specified per ISO9249. No derating is required up to 10,000-ft.

(3050 m) altitude

by ensuring that critical maintenance work gets done right and on schedule. Onsite preventive maintenance service performed where and when you need it helps protect you from the expense of catastrophic failures and lets you avoid wastedisposal hassles.

Extended coverage – gives you a fixed cost for machine repairs for a given period of time so you can effectively manage costs. Whether you work in a severeservice setting or just want to spread the risk of doing business, this is a great way to custom-fit coverage for your operation. And an extended coverage contract also travels well because it's backed by John Deere and is honored by all Deere construction dealers.

Customer Support Advisors (CSAs) – Deere believes the CSA program lends a personal quality to Customer Personal Service (CPS). Certified CSAs have the knowledge and skills for helping make important decisions on machine maintenance and repair. Their mission is to help you implement a plan that's right for your business and take the burden of machine maintenance off your shoulders.

